CLAIMS

1. Architecture for the centralised control of events occurring in correspondence with remote peripheral electronic devices, comprising:

- at least one electronic central device (111), said electronic central device being provided with a processing unit or CPU (123), a transmitting unit (115), a receiving unit (117) and a power supply unit (114);
- at least a device (121) for generating a network timing signal;
- at least one electronic peripheral device (11a, 11b, ... 11n), said peripheral device being provided with a processing unit or CPU (23), a storage unit (25), a transmitting unit (15), a receiving unit (17), a device (21) for generating a local timing signal, a battery (13) and means for periodically interrupting and activating the electric power supply to this transmitting and/or receiving unit,

characterised in that said at least one peripheral device (11a, 11b, ...11n) can be programmed by means of a flow of data autonomously coming from said central device.

2. Architecture according to claim 1, wherein means are provided for allowing the autonomous transfer to said peripheral device from said central device (111) of a flow of information which can be received by said receiving unit (17) in said peripheral device (11a, 11b, ... 11n), said means including a synchronisation loop of the turn-on and turn-off slots of the transmitting/receiving units (15, 17) of said peripheral device with respect to the network timing signal and a data transfer loop from said central device (111) to said peripheral device (11a, 11b, ... 11n).

3. Architecture according to claim 2, wherein said central device (111) and/or said peripheral device (11a, 11b, ... 11n) can assume the following machine states:

- "sleeping state", wherein the transmitting and receiving units are not supplied;
- "passive state", wherein the receiving unit is supplied and the transmitting unit is not supplied;

- "active state", wherein both the transmitting and receiving units are supplied.

4. Architecture according to claim 3, wherein said central device (111) and/or said peripheral device (11a, 11b, ... 11n) periodically switches from the "sleeping state" to the "passive state", the frequency of said switching being determined by a local timing signal and the time length of said "passive state" being determined by said local timing signal and by the reception of data flows by the receiving unit (17).

5. Architecture according to claim 4, wherein said central device and/or said peripheral device periodically switches from the "passive state" to the "active state" and vice versa, the frequency of said switching being determined by the occurrence of an event occurring in correspondence with said central and/or peripheral device and requiring to be transmitted.

6. Architecture according to any of the preceding claims, wherein said peripheral device is a wireless device and wherein said transmitting unit and said receiving unit are a transmitting radio unit and a receiving radio unit, respectively.

7. Architecture according to any of the preceding claims, wherein said supply unit of said central device and/or of said peripheral device includes a battery.

8. Architecture according to claim 3, wherein said supply unit of said central device includes a power supply connected to a public or private electric power supply network.

9. Architecture according to any of the preceding claims, wherein said device for generating a network timing signal is integrated in said central device .

10. Architecture according to any of the preceding claims, wherein said peripheral device is a sensor of an anti-theft or anti-fire system and wherein said central device is the control unit of said system.

11. Architecture according to claim 6, wherein said receiving and transmitting radio units communicate to each other at varying frequencies belonging to a group of predetermined frequencies chosen according to a sequence which is predetermined and common to all the devices, and wherein said synchronisation loop is carried out by utilising always the same

recovery frequency (rf) from this group of frequencies.

12. Method for the centralised control, by means of at least one electronic central device provided with a processing unit or CPU (123), a transmitting unit (115), a receiving unit (117), a supply unit (114) and by means of a device (121) for generating a network timing signal, of events occurring in correspondence with remote peripheral electronic devices provided with a processing unit or CPU (23), a storage unit (25), a transmitting unit (15), a receiving unit (17), a device (21) for generating a local timing signal, a battery (13) and means for periodically interrupting and activating the electric power supply to this transmitting and/or receiving unit, characterised by that it comprises a phase wherein said at least one peripheral device (11a, 11b, ... 11n) is programmed by means of a flow of data autonomously coming from said central device.

13. Method according to claim 12, wherein said peripheral device is programmed by means of a first phase of synchronisation of the turn-on and turn-off slots of the radio units of said peripheral device with the network timing signal and a second phase during which the data are transferred from said central device to said peripheral device.

14. Method according to claim 13, wherein said synchronisation phase involves the sending, by the peripheral device which is out of synchrony, of a synchronisation request (REQ_SYNC), said request being repeated till the reception, by said peripheral device, of an answer (SYNC) emitted by the network timing device.

15. Method according to claim 13, wherein said synchronisation phase involves the sending, by the peripheral device which is out of synchrony, of a synchronisation request (REQ_SYNC), said request being always repeated at the same recovery frequency (rf), chosen from a group of frequencies (f_1, f_2, ... f_n) at which said peripheral devices and said central device operate for the data transmission and reception.

16. Method according to claim 14 or 15, wherein said central device (111) and/or said peripheral device (11a, 11b, ... 11n) can assume the following machine states:

- "sleeping state", wherein the transmitting and receiving units are not supplied;
- "passive state", wherein the receiving unit is supplied and the transmitting unit is not supplied;
- "active state", wherein both the transmitting and receiving units are supplied.

17. Method according claim 16, wherein said data flow (DATA) for the programming of said peripheral device is transmitted by said central device when said peripheral device is in "passive state", said peripheral device moving to "active state" at the end of the reception of said data flow, in order to transmit a confirmation string (ACK) to said central device.

18. Method according to any of claims 12 to 16, wherein the transmission protocol from the peripheral devices to the central device and vice versa is of the CSMA (Carrier Sense Multiple Access) type and includes at least a "Header" field, containing the information about the structure of the string itself, a field containing the source and destination addresses, a field containing the string length, a field containing the data and a control field (CRC).

19. Method according to claim 18, wherein said transmission protocol further includes at least an auxiliary control field, a variant field and an auto-correction field.

20. Method according to claim 19, wherein said auto-correction field is coded according to the Reed-Solomon code.

21. Method according to any of claims 18 to 20, wherein at least one of said fields is ciphered by means of a symmetric algorithm, for example FEALnX algorithm (64 bit block-cipher) , used in CBC (Cipher Block Chaining) mode, and/or with public key.